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ILLINOIS STATE GEOLOGICAL SURVEY

John C. Frye, Chief



ILLINOIS MINERALS NOTE 51

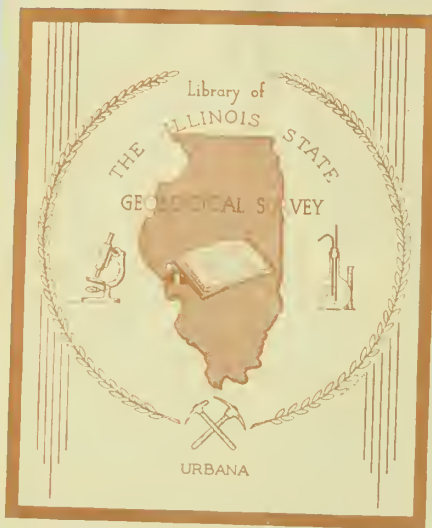
ILLINOIS GEOLOGICAL
SURVEY I.L.R.
JUL 23 1973

ILLINOIS MINERAL PRODUCTION
BY COUNTIES, 1971

W. L. Busch

URBANA, ILLINOIS 61801

JULY 1973



ILLINOIS STATE GEOLOGICAL SURVEY



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ILLINOIS MINERAL PRODUCTION BY COUNTIES, 1971

W. L. Busch

ABSTRACT

This report gives a brief accounting of the value of mineral products produced in all Illinois counties during 1971. The state-wide value of minerals produced in 1971 was 729.7 million dollars, a record high annual total. One hundred counties out of the 102 counties in Illinois reported some mineral production for the year. For each county, all of the mineral products produced are listed, in order of importance, and the total value of these products is given. Other mineral production summaries, giving state and regional information, are also included in this report.

INTRODUCTION

The value of minerals produced in Illinois in 1971 set a record annual high of 729.7 million dollars. This was 13.4 million dollars more than the previous all-time high of 716.3 million dollars set in 1970. During both 1970 and 1971, the same 100 counties, out of Illinois' 102 counties, achieved these production records.

In 1971, 24 Illinois counties produced a total of 58.4 million tons of coal, valued at 318.9 million dollars. The value of this coal accounted for 43.7 percent of the value of all minerals produced in the state for the year. Forty-two counties produced 39.1 million barrels of crude oil, valued at 135.6 million dollars, during 1971. The value of this crude oil was 18.6 percent of the state's total mineral value. The combined value of these fuels amounted to 62.3 percent of the value of all minerals for the year.

Stone products produced in Illinois include crushed stone, cement, and lime and make up the second most important group of minerals produced in this state. As a group, these stone products contributed 18.3 percent of the state's total mineral value in 1971. Table 2 indicates that 67 counties produced crushed stone, 3 counties produced cement, and 2 counties produced lime during the year.

The 1971 production of clay products amounted to 8.1 percent of the state's total mineral products value for the year. Illinois clay products include face brick and common brick, drain and sewer tile, refractories, lightweight aggregate, pottery, and whiteware. In 1971, 33 clay products plants located in 21 counties throughout Illinois reported production. The value of clay products reported produced in Illinois during 1971 amounted to 59.3 million dollars.

Producers of common sand and gravel in Illinois reported the combined production of 42.3 million tons of these materials with a combined total value of 50.3 million dollars for 1971. A total of 4.2 million tons of silica sand, valued at 16.3 million dollars, also was produced during 1971. Common sand was produced in 61 counties, gravel was produced in 59 counties, and 2 counties produced silica sand in 1971 (table 2). Sand and gravel production in Illinois in 1971, including some special sands, contributed a combined total value amounting to 9.3 percent of the value of all minerals produced in the state for the year.

Fluorspar, lead, and zinc produced from Illinois mines had a combined value of 14.3 million dollars in 1971. These three minerals accounted for 2.0 percent of the state's total mineral value for the year. Two counties produced fluorspar and three counties produced lead and zinc.

SUMMARIES OF TABLES

Table 1—Value of Illinois Mineral Production by Counties, Grouped According to Total Values, 1971

The 102 Illinois counties listed in table 1 are classified according to the total value of all minerals reported produced by each county during 1971. Under each of the value groups the counties are arranged alphabetically. This table was designed to give a value rank to all counties in the state, especially to those counties whose mineral products value for 1971 may not be apparent in other tables in this report.

Table 2—Illinois Mineral Products and Major Producing Counties, 1971

Table 2 lists the mineral commodities and the number of counties that produced each item in 1971. Counties supplying the various mineral materials are listed in order of rank to include, when possible, the top 10 producers for the year. Stone was produced by 67 counties, common sand was produced by 61 counties, and gravel was produced by 59 counties during the year. Forty-two counties recovered crude oil, coal was mined in 24 counties, and clay products were produced in 21 counties. All other listed commodities came from one, two, or three counties.

Table 3—Summary of Illinois Mineral Production, 1970-1971

Illinois mineral production for the years 1970 and 1971 is summarized in this table. Listed are the mineral commodities, the production reported by commercial producers, and the state total annual value for each product. The annual values of some mineral products were combined under the heading "Other materials" in order not to reveal individual production figures.

Table 4—Value of Illinois Regional Mineral Production, 1964-1971

In table 4 the counties of Illinois have been grouped into nine regions, as outlined on the map at the end of this report, to show mineral production in broad areas of the state. This table indicates the total value of all minerals produced in each region for the years 1964 through 1971. These regional annual production figures show that certain areas have recorded steady growth over the years, other areas have maintained a more or less constant level of production, and some areas trend toward declining mineral production.

Table 5—Illinois Counties Ranked According to Total Value of Minerals Produced in 1971

The relative position held by each county of Illinois in dollar value of minerals produced during 1971 is shown in table 5. Although each county holds a specific rank in the state, the position of some counties is not given to avoid disclosing individual production information. Therefore, such counties have been combined with one or two other counties of the same region. The combined total mineral production value for these counties has been listed among the individual counties in table 5. All counties in the state are accounted for in this table.

Tables 6-14—Illinois Mineral Production by County, According to
Region, 1971

The dollar value of each county's total mineral production for 1971 is shown in tables 6 through 14. The tables group the counties within regions and list the various mineral products produced in each county in order of importance. The regional and county outlines are shown on the map at the end of this report. In order not to reveal confidential production information, some county values within regions have been combined.

TABLE 1—VALUE OF ILLINOIS MINERAL PRODUCTION BY COUNTIES,
GROUPED ACCORDING TO TOTAL VALUES, 1971
(Counties listed alphabetically within each group)

Millions of dollars						
40.0 - 55.0	30.0 - 40.0	20.0 - 30.0	15.0 - 20.0	10.0 - 15.0	5.0 - 10.0	
Cook	La Salle	Fulton	Fayette	Christian	Clay	
Franklin	St. Clair	Williamson	Knox	Crawford	Douglas	
Jefferson			Lawrence	Gallatin	Du Page	
Perry			Montgomery	Hardin	Grundy	
			Randolph	Kane	McDonough	
			Saline	Lee	McHenry	
			White	Marion	Macoupin	
				Peoria	Massac	
				Wayne	Sangamon	
				Will	Wabash	

Millions of dollars						
2.5 - 5.0	1.5 - 2.5	1.0 - 1.5	0.5 - 1.0	0.0 - 0.5		
Adams	Coles	Alexander	Boone	Bond		
Clark	Edwards	Effingham	Bureau	Brown		
Clinton	Johnson	Jackson	Champaign	Calhoun		
Hamilton	McLean	Pike	De Kalb	Carroll		
Jasper	Menard	Pulaski	De Witt	Cass		
Jo Daviess	Tazewell	Scott	Greene	Cumberland		
Kankakee	Union		Henderson	Edgar		
Lake	Winnebago		Kendall	Ford		
Livingston			Logan	Hancock		
Madison			Macon	Henry		
Ogle			Pope	Iroquois		
Richland			Stephenson	Jersey		
Rock Island			Whiteside	Marshall		
Stark			Woodford	Mason		
Vermilion				Mercer		
Warren				Monroe		
Washington				Morgan		
				Moultrie		
				Piatt		
				Putnam		
				Schuyler		
				Shelby		

TABLE 2—ILLINOIS MINERAL PRODUCTS AND MAJOR PRODUCING
COUNTIES, 1971

Mineral product	Total number of producing counties	Producing counties in order of rank*
Cement	3	Lee, Massac, La Salle
Clay products	21	Cook, La Salle, McDonough, Crawford, Knox, Kane, Du Page, Warren, Grundy, Madison
Coal	24	Perry, Franklin, Jefferson, St. Clair, Fulton, Williamson, Montgomery, Randolph, Saline, Peoria
Crude oil	42	White, Fayette, Lawrence, Wayne, Marion, Crawford, Clay, Wabash, Hamilton, Richland
Fluorspar	2	Hardin, Pope
Lead	3	Hardin, Jo Daviess, Pope
Lime	2	Cook, Adams
Natural bonded molding sand	1	Fayette
Common sand	61	McHenry, Grundy, Lake, Will, Madison, Kane, Winnebago, Rock Island, Sangamon, Tazewell
Common gravel	59	McHenry, Kane, Will, Cook, Du Page, Lake, McLean, Tazewell, White, Peoria
Sandstone	1	Alexander
Silica sand	2	La Salle, Ogle
Stone	67	Cook, Will, St. Clair, Livingston, Kankakee, Vermilion, Johnson, Rock Island, Kane, Hardin
Tripoli	1	Alexander
Zinc	3	Jo Daviess, Hardin, Pope

* For commodities produced by many counties, only the first 10 counties are listed.

TABLE 3—SUMMARY OF ILLINOIS MINERAL PRODUCTION, 1970-1971

Material	Unit	1970		1971	
		Quantity	Value at plants	Quantity	Value at plants
Coal - bituminous	tons	64,884,103	\$319,229,787	58,415,239	\$318,947,205
Crude oil	bbls	43,747,000	142,177,750	39,084,000	135,621,480
Crushed stone	tons	52,738,643	83,153,858	54,557,582	89,997,087
Cement	bbls	8,453,704	27,126,311	8,100,053	28,310,562
Clay products	--	---	53,934,711	---	59,372,033
Common sand	tons	17,750,187	18,349,982	19,270,267	21,145,242
Common gravel	tons	21,378,490	24,731,904	23,015,890	29,174,869
Silica sand	tons	4,365,968	16,769,037	4,218,871	16,282,042
Fluorspar	tons	148,208	8,637,000	138,051	9,882,936
Zinc	tons	16,797	5,146,200	12,706	4,091,493
Lead	tons	1,532	478,600	1,238	341,620
Other materials	--	---	16,564,860	---	16,533,431
TOTAL			\$716,300,000		\$729,700,000

TABLE 4—VALUE OF ILLINOIS REGIONAL MINERAL PRODUCTION, 1964-1971

Region	Value at plants			
	1964	1965	1966	1967
Northwest	\$ 23,764,752	\$ 20,816,139	\$ 21,457,316	\$ 24,101,568
Northeast	105,642,713	108,912,440	109,495,206	111,689,340
West	52,801,695	54,102,781	55,889,208	53,950,971
Central	16,273,648	17,541,957	18,131,790	17,152,078
East	12,935,550	12,502,670	13,287,698	12,697,460
West-southwest	44,264,466	44,439,585	48,628,029	49,452,000
East-southeast	128,222,889	117,761,494	113,717,932	100,464,801
Southwest	94,869,344	105,691,548	118,043,155	124,829,821
Southeast	139,224,943	136,731,386	145,349,666	155,661,961
TOTAL	\$618,000,000	\$618,500,000	\$644,000,000	\$650,000,000

Region	1968	1969	1970	1971
Northwest	\$ 26,915,759	\$ 24,322,204	\$ 23,594,225	\$ 27,063,437
Northeast	127,914,135	132,500,031	131,019,642	139,799,292
West	56,844,431	56,043,195	59,773,390	56,888,920
Central	19,283,910	25,031,506	26,603,265	27,693,809
East	12,356,067	14,456,240	14,463,024	13,546,078
West-southwest	48,200,541	51,429,714	52,370,512	54,556,418
East-southeast	98,390,101	95,862,360	87,479,493	87,275,156
Southwest	122,370,732	122,335,473	137,386,069	136,955,373
Southeast	158,324,324	170,919,277	183,610,380	185,921,517
TOTAL	\$670,600,000	\$692,900,000	\$716,300,000	\$729,700,000

TABLE 5—ILLINOIS COUNTIES RANKED ACCORDING TO TOTAL VALUE
OF MINERALS PRODUCED IN 1971*

Rank [†]	County [‡]	Total value	Rank [†]	County [‡]	Total value
1.	Cook	\$52,492,707		Massac	
2.	Franklin	43,323,857		Pope	\$10,674,135
3.	Perry	43,230,817			
4.	Jefferson	42,226,882	27.	McDonough	8,979,130
			28.	McHenry	8,311,289
5.	St. Clair	37,649,895	29.	Du Page	7,668,242
6.	La Salle	31,700,981	30.	Sangamon	7,288,197
7.	Fulton	24,634,653		Macoupin	
8.	Williamson	22,862,505		Morgan	6,779,063
	Clay				
	Jasper	22,191,593	33.	Grundy	6,532,479
	Marion				
	Gallatin			Cumberland	
	Wabash	20,516,062		Douglas	5,753,181
				Moultrie	
9.	Montgomery	19,803,137	36.	Hamilton	4,859,630
10.	White	19,468,300	37.	Livingston	4,808,544
11.	Randolph	19,326,753		Jackson	
12.	Fayette	16,889,488		Johnson	4,685,104
13.	Lawrence	16,243,785		Union	
14.	Saline	15,175,837			
15.	Knox	15,148,400	38.	Richland	4,654,900
16.	Peoria	14,881,531	39.	Madison	4,305,524
18.	Wayne	14,411,030			
19.	Will	14,010,841		Marshall	
				Stark	3,985,012
20.	Crawford	13,884,312			
21.	Kane	13,676,202	40.	Vermilion	3,729,431
22.	Hardin	13,222,875	41.	Kankakee	3,727,700
23.	Lee	12,664,706	42.	Washington	3,661,843
25.	Christian	12,347,611	44.	Adams	3,643,483

(Continued on next page)

TABLE 5 - Continued*

Rank†	County†	Total value	Rank†	County†	Total value
	Brown } Schuyler } Warren }	\$ 3,614,767	68.	Woodford	\$ 890,027
				Henry } Mercer } Putnam }	876,153
46.	Ogle	3,300,037	70.	Greene	867,250
47.	Clark	3,146,797	71.	De Kalb	849,612
48.	Lake	2,907,701	72.	Logan	840,009
50.	Rock Island	2,791,168	73.	Stephenson	809,604
51.	Jo Daviess	2,779,718	74.	Champaign	778,620
52.	Clinton	2,766,958	76.	Boone	672,018
53.	Coles	2,427,082	77.	Bureau	605,366
54.	Tazewell	2,403,151	78.	Whiteside	586,128
55.	Winnebago	2,243,542	79.	Macon	572,032
56.	Edwards	2,042,909	80.	Henderson	506,627
	Monroe } Pulaski }	1,708,540		Ford } Iroquois }	501,783
58.	Menard	1,639,082			
60.	McLean	1,535,452	82.	Shelby	491,288
61.	Pike	1,266,896	84.	Bond	459,592
64.	Effingham	1,235,320	88.	Carroll	407,015
65.	Scott	1,176,262	89.	Hancock	361,860
			90.	Edgar	357,410
66.	Alexander	1,062,958			
67.	Kendall	977,220	92.	Jersey	211,321
			96.	Calhoun	51,565
	De Witt } Mason }	947,513	101.	Cass }*	---
			102.	Piatt }	---

* Table is based on information recorded on following pages of this report.

† The rank of individual counties is based on numbered rank of all counties from 1 through 102. The individual rank of combined counties cannot be given.

‡ The total of combined counties is placed in order among totals of single counties.

§ No commercial mineral production reported for 1971.

TABLE 6—ILLINOIS MINERAL PRODUCTION BY COUNTY, NORTHWEST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Bureau	\$ 605,366	Gravel, sand
Carroll	407,015	Stone, sand, gravel
Henry	876,153	Stone, sand
Mercer		Coal, stone
Putnam		Gravel
Jo Daviess	2,779,718	Zinc, stone, lead, sand, gravel
Lee	12,664,706	Cement, stone, sand, gravel
Ogle	3,300,037	Silica sand, stone, sand, gravel
Rock Island	2,791,168	Stone, sand, gravel
Stephenson	809,604	Stone, gravel, sand
Whiteside	586,128	Stone, sand, gravel
Winnebago	2,243,542	Stone, sand, gravel
TOTAL	\$27,063,437	

TABLE 7—ILLINOIS MINERAL PRODUCTION BY COUNTY, NORTHEAST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Boone	\$ 672,018	Stone, gravel, sand
Cook	52,492,707	Stone, lime, clay products, gravel, sand
De Kalb	849,612	Stone, sand, gravel
Du Page	7,668,242	Clay products, stone, gravel, sand
Grundy	6,532,479	Sand, clay products, coal, gravel, stone
Kane	13,676,202	Clay products, gravel, stone, sand
Kendall	977,220	Stone, gravel, sand
Lake	2,907,701	Clay products, sand, gravel, stone
La Salle	31,700,981	Silica sand, clay products, cement, sand, gravel, stone
McHenry	8,311,289	Gravel, sand, stone
Will	14,010,841	Stone, gravel, coal, sand
TOTAL	\$139,799,292	

TABLE 8—ILLINOIS MINERAL PRODUCTION BY COUNTY, WEST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Adams	\$ 3,643,483	Stone, lime, sand, crude oil, gravel
Fulton	24,634,653	Coal, gravel, sand
Hancock	361,860	Stone
Brown } Schuyler } Warren }	3,614,767	Clay products, sand, crude oil, stone, gravel Stone, gravel, sand Clay products, stone
Henderson	506,627	Stone
Knox	15,148,400	Coal, clay products, stone
McDonough	8,979,130	Clay products, stone, crude oil
TOTAL	\$56,888,920	

TABLE 9—ILLINOIS MINERAL PRODUCTION BY COUNTY, CENTRAL REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Logan	\$ 840,009	Stone, gravel, sand
McLean	1,535,452	Gravel, sand
Macon	572,032	Sand, gravel, crude oil
De Witt } Mason }	947,513	Crude oil, gravel, sand Gravel, stone
Marshall } Stark }	3,985,012	Gravel, sand Coal, gravel, sand
Menard	1,639,082	Stone
Peoria	14,881,531	Coal, stone, gravel, sand
Tazewell	2,403,151	Gravel, sand, clay products
Woodford	890,027	Gravel, sand
TOTAL	\$27,693,809	

TABLE 10—ILLINOIS MINERAL PRODUCTION BY COUNTY, EAST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Champaign	\$ 778,620	Sand, gravel
Kankakee	3,727,700	Stone, clay products, sand
Ford } Iroquois }	501,783	Sand, gravel Sand, gravel
Livingston	4,808,544	Stone, clay products, gravel, sand
Piatt	---	No mineral production reported for 1971
Vermilion	3,729,431	Stone, clay products, gravel, coal, sand
TOTAL	\$13,546,078	

TABLE 11—ILLINOIS MINERAL PRODUCTION BY COUNTY,
WEST-SOUTHWEST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Bond	\$ 459,592	Sand, crude oil, gravel
Calhoun	51,565	Stone
Cass	---	No mineral production reported for 1971
Christian	12,347,611	Coal, crude oil, stone
Greene	867,250	Stone, clay products
Jersey	211,321	Stone
Macoupin } Morgan }	6,779,063	Coal, stone Sand
Madison	4,305,524	Stone, clay products, sand, crude oil
Montgomery	19,803,137	Coal, stone, crude oil
Pike	1,266,896	Stone, gravel, sand
Sangamon	7,288,197	Coal, sand, crude oil, clay products, gravel, stone
Scott	1,176,262	Clay products, stone, sand, gravel
TOTAL	\$54,556,418	

TABLE 12—ILLINOIS MINERAL PRODUCTION BY COUNTY,
EAST-SOUTHEAST REGION, 1971

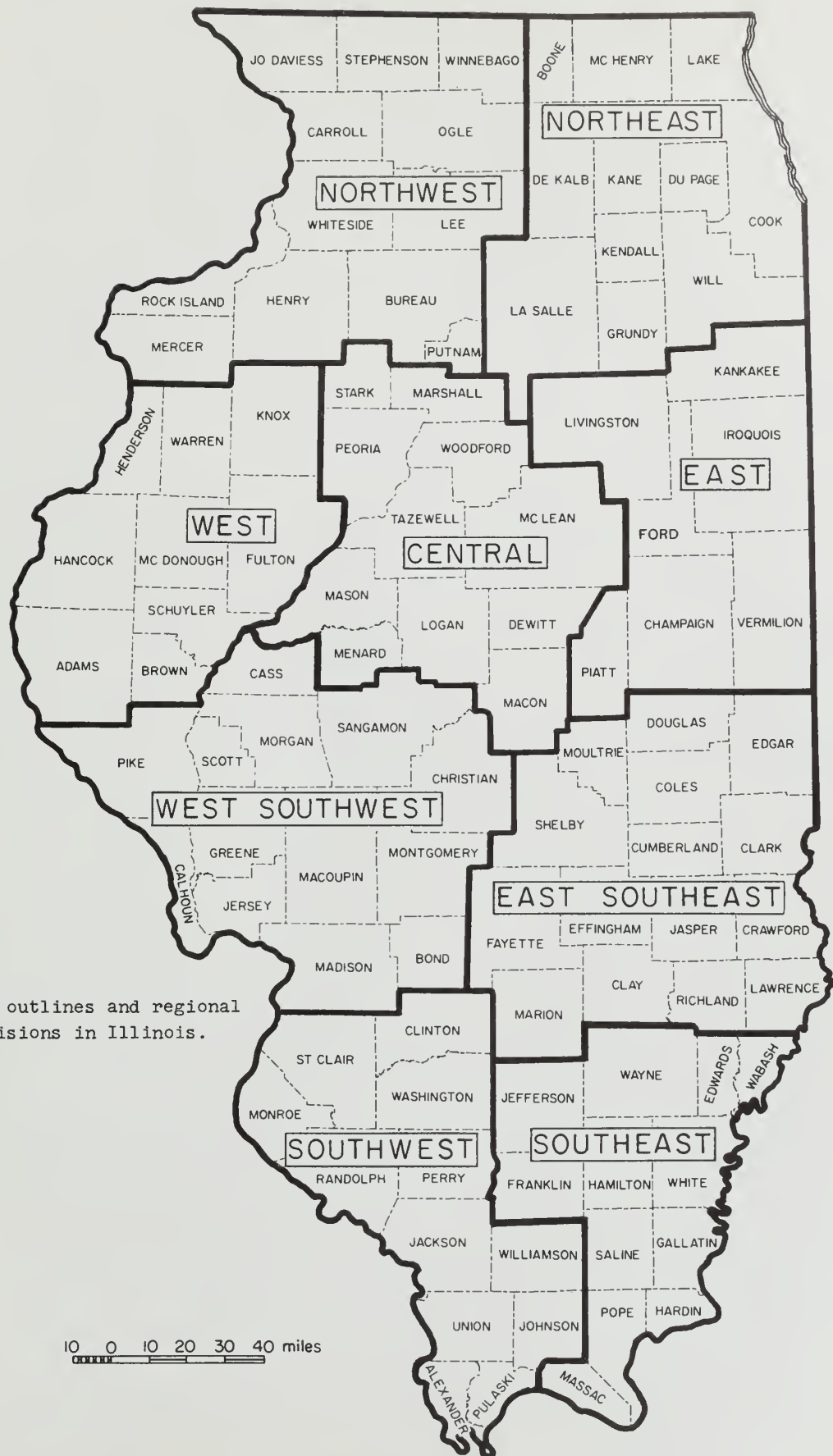
County	Total value all minerals	Minerals produced, in order of value
Clark	\$ 3,146,797	Stone, crude oil, gravel, sand
Coles	2,427,082	Crude oil, stone, sand, gravel
Crawford	13,884,312	Crude oil, clay products, gravel, sand, stone, gas
Cumberland	5,753,181	Crude oil, stone
Douglas		Coal, crude oil, stone
Moultrie		Stone, gravel, crude oil
Edgar	357,410	Crude oil
Effingham	1,235,320	Crude oil
Fayette	16,889,488	Crude oil, stone, clay products, gravel, sand, gas, natural bonded molding sand
Clay	22,191,593	Crude oil, stone, gas
Jasper		Crude oil, gas, gravel, sand
Marion		Crude oil, stone, gas
Lawrence	16,243,785	Crude oil, gravel, sand, gas
Richland	4,654,900	Crude oil, gas
Shelby	491,288	Stone, crude oil, gravel, sand
TOTAL	\$87,275,156	

TABLE 13—ILLINOIS MINERAL PRODUCTION BY COUNTY, SOUTHWEST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Alexander	\$ 1,062,958	Tripoli, sand, gravel, sandstone
Clinton	2,766,958	Crude oil, stone, sand, gas, gravel
Perry	43,230,817	Coal, crude oil
Jackson	4,685,104	Stone, coal, sand
Johnson		Stone, coal
Union		Stone, gravel
Monroe	1,708,540	Stone
Pulaski		Clay products, stone
Randolph	19,326,753	Coal, stone, crude oil, sand
St. Clair	37,649,895	Coal, stone, crude oil
Washington	3,661,843	Crude oil, stone, gas
Williamson	22,862,505	Coal, crude oil
TOTAL	\$136,955,373	

TABLE 14—ILLINOIS MINERAL PRODUCTION BY COUNTY, SOUTHEAST REGION, 1971

County	Total value all minerals	Minerals produced, in order of value
Edwards	\$ 2,042,909	Crude oil, gas
Franklin	43,323,857	Coal, crude oil, gas
Hamilton	4,859,630	Crude oil, gas
Gallatin	20,516,062	Coal, crude oil, sand, gravel, gas
Wabash		Crude oil, sand, gravel, gas
Hardin	13,222,875	Fluorspar, stone, zinc, lead
Jefferson	42,226,882	Coal, crude oil, gas
Massac	10,674,135	Cement, stone, sand, gravel
Pope		Fluorspar, zinc, coal, lead
Saline	15,175,837	Coal, crude oil, gas
Wayne	14,411,030	Crude oil, gas
White	19,468,300	Crude oil, gravel, sand, gas
TOTAL	\$185,921,517	



County outlines and regional divisions in Illinois.

SELECTED LIST OF SURVEY PUBLICATIONS

MINERAL ECONOMICS BRIEFS SERIES

5. Summary of Illinois Mineral Production in 1961. 1962.
11. Shipments of Illinois Crushed Stone, 1954-1964. 1966.
12. Mineral Resources and Mineral Industries of the East St. Louis Region, Illinois. 1966.
13. Mineral Resources and Mineral Industries of the Extreme Southern Illinois Region. 1966.
17. Mineral Resources and Mineral Industries of the Springfield Region, Illinois. 1967.
19. Mineral Resources and Mineral Industries of the Western Illinois Region. 1967.
20. Mineral Resources and Mineral Industries of the Northwestern Illinois Region. 1967.
21. Illinois Mineral Production by Counties, 1966. 1968.
22. Mineral Resources and Mineral Industries of the Northeastern Illinois Region. 1968.
26. Evaluation of Fuels—Long-Term Factors and Considerations. 1969.
27. Illinois Mineral Production by Counties, 1968. 1970.
29. Directory of Illinois Mineral Producers. 1971.

INDUSTRIAL MINERALS NOTES SERIES

13. Summary of Illinois Mineral Industry, 1951-1959. 1961.
17. Pelletizing Illinois Fluorspar. 1963.
19. Binding Materials Used in Making Pellets and Briquets. 1964.
20. Chemical Composition of Some Deep Limestones and Dolomites in Livingston County, Illinois. 1964.
21. Illinois Natural Resources—An Industrial Development Asset. 1964.
23. Limestone Resources of Jefferson and Marion Counties, Illinois. 1965.
24. Thermal Expansion of Certain Illinois Limestones. 1966.
26. Binders for Fluorspar Pellets. 1966.
27. High-Purity Limestones in Illinois. 1966.
29. Clay and Shale Resources of Clark, Crawford, Cumberland, Edgar, Effingham, Jasper, and Vermilion Counties. 1967.
30. Lightweight Bricks Made with Clay and Expanded Plastic. 1967.
31. Clays as Binding Materials. 1967.
32. Silica Sand Briquets and Pellets as a Replacement for Quartzite. 1968.
34. Neutron Activation Analysis at the Illinois State Geological Survey. 1968.
35. Computer-Calculated Lambert Conformal Conic Projection Tables for Illinois (7.5-Minute Intersections). 1968.
36. Beneficiation of Kaolinite Clay from Silica Sand Washings. 1968.
37. Peat and Humus in Illinois. 1969.
38. Kankakee Dune Sands as a Commercial Source of Feldspar. 1969.
39. Alumina Content of Carbonate Rocks as an Index to Sodium Sulfate Soundness. 1969.
40. Colloidal-Size Silica Produced from Southern Illinois Tripoli. 1970.
41. Two-Dimensional Shape of Sand Made by Crushing Illinois Limestones of Different Textures. 1970.
42. An Investigation of Sands on the Uplands Adjacent to the Sangamon River Floodplain: Possibilities as a "Blend Sand" Resource. 1970.
43. Lower Mississippi River Terrace Sands as a Commercial Source of Feldspar. 1970.
44. Analyses of Some Illinois Rocks for Gold. 1970.
45. Clay and Shale Resources of Madison, Monroe, and St. Clair Counties, Illinois. 1971.
46. Sideritic Concretions in Illinois Shale, Gravel, and Till. 1972.
47. Selected and Annotated List of Industrial Minerals Publications of the Illinois State Geological Survey. 1972.

ILLINOIS MINERALS NOTES SERIES

(The Illinois Minerals Notes Series continues the Industrial Minerals Notes Series and incorporates the Mineral Economics Briefs Series)

48. Illinois Mineral Production by Counties, 1970. 1972.
49. Clay and Shale Resources of Peoria and Tazewell Counties, Illinois. 1973.
50. By-Product Gypsum in Illinois—A New Resource? 1973.

